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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: John S. Sadowsky et al.
Title: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA
ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM

Docket No.: 884.A56US1
Filed: December 29, 2003
Examiner: Unknown

Serial No.: 10/750,587
Due Date: N/A
Group Art Unit: 2661



MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ A Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (1 pg.), and copies of 6 cited documents, including the International Search Report for corresponding PCT Application No. PCT/US2004/025509.

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

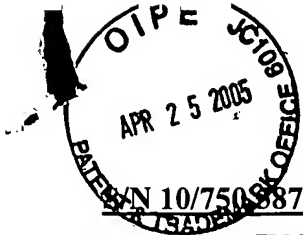
By: Ann M. McCracklin
Atty: Ann M. McCracklin
Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 22nd day of April, 2005.

JAMES KAUSYUSIK
Name

James Kausyusik
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)



10/750,587

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	John S. Sadowsky et al.	Examiner:	Unknown
Serial No.:	10/750,587	Group Art Unit:	2661
Filed:	December 29, 2003	Docket:	884.A56US1
Title:	SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM		
Assignee:	Intel Corporation	Customer No:	21186

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

The attached documents were discovered as a result of a Search Report in Applicants' corresponding foreign patent application. Enclosed for the Examiner's information is a copy of the cited documents and the Search Report.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Supplemental Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Supplemental Information Disclosure Statement considered.

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Serial No : 10/750,587

Filing Date: December 29, 2003

Title: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION
MULTIPLEXED COMMUNICATION SYSTEM

Assignee: Intel Corporation

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Dkt: 884.A56US1 (INTEL)

The present application is either a U.S. national patent application filed after June 30, 2003 or an international application that entered the national stage under 35 U.S.C. § 371 after June 30, 2003. Thus, Applicant believes that the U.S. Patent & Trademark Office has waived the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication. The waiver is provided in a pre-OG notice from the U.S. Patent & Trademark Office entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003" and dated July 11, 2003. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

JOHN S. SADOWSKY ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
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Date April 22, 2005

By Ann M. McCrackin
Ann M. McCrackin
Reg. No. 42,858

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JAMES KAUYSIK
Name

[Signature]
Signature

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/750,587
Filing Date	December 29, 2003
First Named Inventor	Sadowsky, John
Group Art Unit	2661
Examiner Name	Unknown

Sheet 1 of 1

Attorney Docket No: 884.A56US1

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T ²
	WO-2005/022681A2	03/10/2005	Sadowsky, J. , et al.	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	"International Search Report for corresponding PCT Application No. PCT/US2004/025509", (March 29, 2005), 3 pgs.	
	GUILLAUD, M. , et al., "Multi-Stream Coding for MIMO OFDM Systems with Space-Time-Frequency Spreading", <u>International Symposium on Wireless Personal Multimedia Communications</u> , (Oct. 27, 2002), 120-124	
	RENDE, D. , et al., "Bit Interleaved Space-Frequency Coded Modulation for OFDM Systems", <u>IEEE International Conference on Communications</u> , (May 11, 2003), 2827-2831	
	TORABI, M. , et al., "Performance Evaluation of Space-Frequency Coded OFDM Systems Over Frequency Selective Fading Channels", <u>Canadian Conference on Electrical and Computer Engineering</u> , (May. 04, 2003), 1699-1702	
	TORABI, M. , et al., "Space-Time-Frequency COFDM with Power Allocation for Broadband Wireless Communications", <u>IEEE Vehicular Technology Conference</u> , <u>Electrical & Computer Deptt.</u> , (Sep. 24, 2002), 209-213	

EXAMINER**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1448)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 808. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached